

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of : Peter V. Radatti

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For: APPARATUS AND METHODS FOR INTERCEPTING, EXAMINING AND
CONTROLLING CODE, DATA AND FILES AND THEIR TRANSFER IN INSTANT
MESSAGING AND PEER-TO-PEER APPLICATIONS

**PETITION TO MAKE SPECIAL
UNDER 37 C.F.R. § 1.102(d)**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicant hereby petitions under 37 CFR § 1.102(d) and MPEP 708.02(VIII) that the
subject application be accorded special status and advanced in order of examination.

The requirements of 37 C.F.R. § 1.102 and MPEP § 708.02 are fulfilled as follows:

1. A check for the appropriate fee (\$130.00) as set forth in 37 C.F.R. §1.17(h) is
attached hereto.

2. The patent application filed herewith presents Claims 1-36 drawn to a single
invention. In the event that restriction is required, an election will be made without traverse.

3. A pre-examination search was made. The class and subclass searched was
370/389, 709/204, 709/217, 709/218, 709/230, 709/231, 709/232, 709/246, 709/250, 713/201,

and 714/38. An Information Disclosure Statement (IDS) is filed concurrently herewith. The listed publications, copies enclosed, represent the results of the search.

4. A copy of each of the cited publications is enclosed for the record.

5. A detailed discussion of the publications follows, pointing out, with particularity as set forth in 37 C.F.R. §§ 1.111(b) and (c), that the claimed subject matter is patentable over the cited publications.

Applicants respectfully submit that all requirements called for by the applicable rules have been fulfilled. Applicants respectfully request early favorable action on this Petition.

Detailed Description of the Cited Art

This detailed description of the related art is submitted as part of the Petition to Make Special pursuant to 37 C.F.R. § 1.102 and MPEP § 708.02. The publications uncovered during the pre-examination search and cited by the Applicants are discussed below.

U.S. PATENTS				
No.	Patent No.	Inventor	Date Issued	Title
1	6,421,733	Tso <i>et al.</i>	07/16/2002	System for dynamically transcoding data transmitted between computers
2	6,356,951	Gentry, Jr.	03/12/ 2002	System for parsing a packet for conformity with a predetermined protocol using mask and comparison values included in a parsing instruction
3	6,088,803	Tso <i>et al.</i>	07/11/2000	System for virus-checking network data during download to a client device
4	5,983,348	Ji	11/09/1999	Computer network malicious code scanner

U.S. PATENTS (cont'd)				
No.	Patent No.	Inventor	Date Issued	Title
5	5,931,917	Nguyen <i>et al.</i>	08/03/1999	System, method and article of manufacture for a gateway system architecture with system administration information accessible from a browser
6	5,916,305	Sikdar <i>et al.</i>	06/29/1999	Pattern recognition in data communications using predictive parsers
7	5,889,943	Ji <i>et al.</i>	03/30/1999	Apparatus and method for electronic mail virus detection and elimination
8	5,832,228	Holden <i>et al.</i>	11/03/1998	System and method for providing multi-level security in computer devices utilized with non-secure networks
9	5,832,208	Chen <i>et al.</i>	11/03/1998	Anti-virus agent for use with databases and mail servers
10	5,802,178	Holden <i>et al.</i>	09/01/1998	Stand alone device for providing security within computer networks
11	5,761,424	Adams <i>et al.</i>	06/02/1998	Method and apparatus for programmable filtration and generation of information in packetized communication systems
12	5,623,600	Ji <i>et al.</i>	04/22/1997	Virus detection and removal apparatus for computer networks
13	5,586,266	Hershey <i>et al.</i>	12/17/1996	System and method for adaptive, active monitoring of a serial data stream having a characteristic pattern
14	5,550,984	Gelb	08/27/1996	Security system for preventing unauthorized communications between networks by translating communications received in ip protocol to non-ip protocol to remove address and routing services information
15	5,511,163	Lerche <i>et al.</i>	04/23/1996	Network adaptor connected to a computer for virus signature recognition in all files on a network
16	5,481,735	Mortensen <i>et al.</i>	01/02/1996	Method for modifying packets that meet a particular criteria as the packets pass between two layers in a network
17	5,414,833	Hershey <i>et al.</i>	05/09/1995	Network security system and method using a parallel finite state machine adaptive active monitor and responder
18	5,319,776	Hile <i>et al.</i>	06/07/1994	In transit detection of computer virus with safeguard
19	5,126,728	Hall	06/30/1992	ADP security device for labeled data
20	6,549,937	Auerbach, <i>et al.</i>	04/15/2003	System and Method for Multi-Protocol Communication in a Computer Network

U.S. PUBLISHED PATENT APPLICATIONS

No.	Publ. No.	Inventor	Publ. Date	Title
21	20020004819	Agassy <i>et al.</i>	01/10/2002	Device and method for data interception and updating
22	20030131061	Newton <i>et. al.</i>	07/10/2003	Transparent Proxy Server for Instant Messaging System and Methods

Description of the Cited Art

1. U.S. Patent No. 6,421,733 to Tso *et al.*

A system for dynamically transcoding data transmitted between computers is implemented in an apparatus for use in transmitting data between a network server and a network client over a communications link. The apparatus includes a parser coupled to a transcode service provider. The parser is configured to selectively invoke the transcode service provider in response to a predetermined selection criterion.

2. U.S. Patent No. 6,356,951 to Gentry, Jr.

A high performance network interface receives network traffic in the form of packets. The network interface parses one or more headers of a received packet in order to determine whether the packet has been formatted with a pre-selected protocol. If so, one or more efficient enhancements in the processing of a packet may be enabled for the packet. During parsing, header data that may be useful in the processing enhancements may be saved. A packet conforming to one or more of a set of pre-selected protocols may be more completely parsed than a packet not conforming to any of the pre-selected protocols. Instructions for parsing a packet to determine a protocol and to extract useful data are stored in a writeable random-access memory. The instructions may be replaced, modified or supplemented depending upon the composition of network traffic and the protocols selected for enhanced processing. In a parsing instruction executed by a micro-sequencer, a value is extracted from a header and compared to a

test value that may be derived from a protocol specification. If the comparison succeeds parsing continues along a first branch; if the comparison succeeds it continues along a second branch. The value extracted from the header may be saved. An offset to a parsing position within the packet is maintained and updated as the packet is parsed. Values other than those extracted for comparison may also be identified and saved.

3. U.S. Patent No. 6,088,803 to Tso *et al.*

A system for virus checking a data object to be downloaded to a client device is implemented in a method including the steps of retrieving a data object to be downloaded, scanning the data object for a computer virus, and downloading the data object to the client device if no computer virus is detected.

4. U.S. Patent No. 5,983,348 to Ji

A network scanner for security checking of application programs (e.g. Java applets or Active X controls) received over the Internet or an Intranet has both static (pre-run time) and dynamic (run time) scanning. Static scanning at the HTTP proxy server identifies suspicious instructions and instruments them e.g. a pre-and-post filter instruction sequence or otherwise. The instrumented applet is then transferred to the client (web browser) together with security monitoring code. During run time at the client, the instrumented instructions are thereby monitored for security policy violations, and execution of an instruction is prevented in the event of such a violation.

5. U.S. Patent No. 5,931,917 to Nguyen *et al.*

Secure transmission of data is provided between a plurality of computer systems over a public communication system, such as the Internet. Secure transmission of data is provided from a customer computer system to a merchant computer system, and for the further secure

transmission of payment information from the merchant computer system to a payment gateway computer system. The payment gateway system receives encrypted payment requests from merchants, as HTTP POST messages via the Internet, and customizes the secured messages for various entities by a gateway unwrapping and decrypting the requests. The gateway also authenticates digital signatures of the requests based on certificates, supports transaction types and card types as required by a financial institution, and accepts concurrent VPOS transactions from each of the merchant servers. Then, the gateway converts transaction data to host-specific formats and forwards the mapped requests to the host processor using the existing financial network. The gateway system architecture includes support for standard Internet access routines which facilitate access to system administration information from a commercial web browser.

6. U.S. Patent No. 5,916,305 to Sikdar *et al.*

Data communication packets are processed to determine whether they match network protocols using a parser table and a predictive parser. The parser table is encoded from production rules derived from a network protocol definition. Packets comprise data elements each having an offset from the beginning of the packet and a data value. The parser table is indexed by these offsets and data values, each location in the table containing a value indicating whether a data element at the offset and having the data value is a valid element for the network protocol definition. Once encoded, the parser table is used with the predictive parser which receives data elements of a data packet from a network source. The predictive parser uses the offset and data value of each data element to obtain the encoded value in the parser table. The predictive parser updates a parser stack according to the value from the parser table and the current value of the parser stack. The parser table indicates which offset, value pairs are

associated with the end of the data packet or other portion of interest. When the end is reached, the parser stack indicates whether the data packet matched the network protocol definition.

7. U.S. Patent No. 5,889,943 to Ji *et al.*

The detection and elimination of viruses on a computer network is disclosed. An apparatus and method for detecting and eliminating viruses which may be introduced by messages sent through a postal node of an electronic mail system includes polling and retrieval modules in communication with the postal node to determine the presence of unscanned messages and to download data associated with them to a node for treatment by a virus analysis and treatment module.

8. U.S. Patent No. 5,832,228 to Holden *et al.*

A multi-level network security system is disclosed for a computer host device coupled to at least one computer network. The system including a secure network interface Unit (SNIU) contained within a communications stack of the computer device that operates at a user layer communications protocol. The SNIU communicates with other like SNIU devices on the network by establishing an association, thereby creating a global security perimeter for end-to-end communications and wherein the network may be individually secure or non-secure without compromising security of communications within the global security perimeter. The SNIU includes a host/network interface for receiving messages sent between the computer device and network. The interface operative to convert the received messages to and from a format utilized by the network. A message parser for determining whether the association already exists with another SNIU device. A session manager coupled to said network interface for identifying and verifying the computer device requesting access to said network. The session manager also for transmitting messages received from the computer device when the message parser determines

the association already exists. An association manager coupled to the host/network interface for establishing an association with other like SNIU devices when the message parser determines the association does not exist.

9. U.S. Patent No. 5,832,208 to Chen *et al.*

A software agent for detecting and removing computer viruses located in attachments to e-mail messages. A client-server computer network includes a server computer and a plurality of client computers. A message system, located at the server computer, controls the distribution of e-mail messages. An anti-virus module, located at the server computer, scans files for viruses. The agent is located at the server computer and provides an interface between the anti-virus module and the message system. The agent can operate both on a real-time basis and at preset period intervals. E-mail messages that are sent internally within the network can be scanned, e.g., Intranet e-mail messages. In addition, e-mail messages received over the Internet can be scanned.

10. U.S. Patent No. 5,802,178 to Holden *et al.*

A multi-level security device is disclosed for providing security between a user and at least one computer network, wherein the user is selected from the group consisting of a host computer and at least a second network. A secure network interface Unit (SNIU) that operates at a user layer communications protocol, which communicates with other like SNIU devices by establishing an association at a session layer of a communication stack in order to create a global security perimeter for end-to-end communications. The SNIU includes a host/network interface for receiving messages sent between the user and the at least one network, which is operative to convert the received messages to and from a format utilized by the at least one network. A message parser for determining whether the association already exists with another SNIU device. A session manager coupled to the interface for identifying and verifying the user requesting

access to the network. The session manager also for transmitting the messages received from the user when the message parser determines the association already exists. An association manager coupled to the interface for establishing an association with other like SNIU devices when the message parser determines the association does not exist.

11. U.S. Patent No. 5,761,424 to Adams *et al.*

A method and associated apparatus for automating the filtration and generation of information in a packetized communication system. A filtration table includes entries used in recognizing a valid packet received at a node in a communication system. A mask field in each entry is applied to appropriate fields in the packet (e.g. the ordered set as applied to Fibre Channel communication systems) to determine the validity of the packet with regard to the receiving node. Rules in a field of each entry further qualify the recognition of a received packet (e.g. ordered set) by testing the reception of the packet against other logical rules. Action fields in each record permit definition of actions to be invoked automatically (e.g. automatic adjustment of fill transmissions in Fibre Channel applications) in response to receipt and recognition of a particular packet. The set of packets recognized by the receiving node may be modified by adding, deleting, or modifying the entries in the filtration table. The programmable filtration thereby permits simple modifications to the protocol supported by the receiving node. Programmable generation capabilities of the present invention permit rapid integration of additional packets (e.g. ordered sets) transmitted in response to perceived packets in the receiving node. Programmable parameters in the receiving node permit automatic generation and transmission of packets in accordance with the parameter settings at the time of packet transmission.

12. U.S. Patent No. 5,623,600 to Ji *et al.*

A system for detecting and eliminating viruses on a computer network including a File Transfer Protocol (FTP) proxy server, for controlling the transfer of files and a Simple Mail Transfer Protocol (SMTP) proxy server for controlling the transfer of mail messages through the system. The FTP proxy server and SMTP proxy server run concurrently with the normal operation of the system and operate in a manner such that viruses transmitted to or from the network in files and messages are detected before transfer into or from the system. The FTP proxy server and SMTP proxy server scan all incoming and outgoing files and messages, respectively before transfer for viruses and then transfer the files and messages, only if they do not contain any viruses. A method for processing a file before transmission into or from the network includes the steps of: receiving the data transfer command and file name; transferring the file to a system node; performing virus detection on the file; determining whether the file contains any viruses; transferring the file from the system to a recipient node if the file does not contain a virus; and deleting the file if the file contains a virus.

13. U.S. Patent No. 5,586,266 to Hershey et al.

An adaptive, active monitor invention is useful in detecting characteristic data patterns in messages on a high speed data network, such as starting delimiters, tokens, various types of frames, and protocol information. Such serial data streams include serial patterns of binary bits, and can also include serial patterns of multiple state symbols, such as in token ring networks and FDDI networks. The adaptive, active monitor includes two finite state machines (FSM) which are constructed to detect the occurrence of a characteristic data pattern having multiple component bit patterns. A first FSM is the predecessor FSM, and it is configured to detect the first occurring component pattern. A second FSM is called the successor FSM, and it is configured to detect the second occurring component pattern. The first FSM will send a starting

signal to the second FSM, when the first FSM has successfully detected the first component pattern. The starting signal initializes the second FSM, to take over the analysis of the portion of the bit stream which follows the first component pattern. If the second FSM successfully detects the second component pattern, it then outputs a pattern alarm signal, indicating the successful detection of the entire characteristic data pattern.

14. U.S. Patent No. 5,550,984 to Gelb

A security system for connecting a first computer network to a second computer network is provided. The security device has a pair of computer motherboards, each of which has a network interface adapter for receiving and transferring communications from a computer network to a transfer adapter to be transmitted to the other computer network through a transfer adapter and network interface adapter provided on the other computer motherboard. Each motherboard provides protocol translation from a first protocol to a second protocol and removes source and destination address information from communications transferred to the other computer motherboard. Application program interface shim software or dynamic link library software provides control of communications between the two motherboards for passing code necessary to request and receive services from the other computer network.

15. U.S. Patent No. 5,511,163 to Lerche *et al.*

A data processing system comprising a plurality of computers interconnected through a local network, preferably in the form of a ring. The network being connected to a network adapter which is able to receive all information on the network. The network adaptor is connected to a computer which together with the adaptor can perform an assembling and scanning of substantially all files on the network and carry out a recognition of virus signatures. The individual file packets circulation in the network are assembled, said file packets being

assembled in a file and scanned for virus signatures. When a virus signature is detected in the file, information is simultaneously provided on the transmitting stations and the receiving stations, whereafter it is possible to transmit the vaccine to the stations in question.

16. U.S. Patent No. 5,481,735 to Mortensen *et al.*

A method and apparatus in a computer system coupled to a network for altering information in said network by the computer system. A process is inserted between two lower layers of the ISO/OSI model. The process then receives a packet from a first layer of the ISO/OSI model, and determines whether a criteria comprising a set of conditions has been determined in the packet. If any of the set of criteria is present in the packet then the packet is transformed into a modified packet according to a predefined action. Then, the modified packet is transmitted to a second layer of the ISO/OSI model. In different embodiments the layers may be either higher or lower relative to one another in order that incoming or outgoing packets be modified. The method may also be performed under control of a user-generated script, or by remote control from another node. The method may also employ user-generated processes for condition (criteria) checking and/or modifications.

17. U.S. Patent No. 5,414,833 to Hershey *et al.*

A system and method provide a security agent, consisting of a monitor and a responder, that respond to a detected security event in a data communications network, by producing and transmitting a security alert message to a network security manager. The alert is a security administration action which includes setting a flag in an existing transmitted protocol frame to indicate a security event has occurred. The security agent detects the transmission of infected programs and data across a high-speed communications network. The security agent includes an adaptive, active monitor using finite state machines, that can be dynamically reprogrammed in

the event it becomes necessary to dynamically reconfigure it to provide real time detection of the presence of a suspected offending virus.

18. U.S. Patent No. 5,319,776 to Hile *et al.*

Data is tested in transit between a source medium and a destination medium, such as between two computer communicating over a telecommunications link or network. Each character of the incoming data stream is tested using a finite state machine which is capable of testing against multiple search strings representing the signatures of multiple known computer viruses. When a virus is detected the incoming data is prevented from remaining on the destination storage medium. Both hardware and software implementations are envisioned.

19. U.S. Patent No. 5,126,728 to Hall

A data processing security device, attached to computing equipment, inserts labels into a data stream that indicate security controls for the data. The security device may also be configured to detect security labels within a data stream and inhibit the flow of data. It also may replace data within a data stream if it detects labeled fields which indicate that privacy should be imposed.

19. U.S. Patent No. 6,549,937 to Auerbach, *et. al.*

A conversion platform for various instant messaging protocols is provided. The conversion platform consists, at least in part, of services protocol modules that provide translation to and from dedicated instant messaging protocols.

20. U.S. Published Patent Application No. 20020004819 to Agassy *et al.*

Apparatus for intercepting data communicated between a sender and a receiver, and conditionally altering that data, the apparatus comprising: an interception unit, capable of intercepting said data, setting information for storing predetermined device settings, access functionality, associated with said interception unit operable to access information within said intercepted data, and a search and replace unit, associated with both said interception unit and said access functionality, for conditionally altering the intercepted data in response to said accessed information and said device settings. The device is useful for dynamically updating web pages and the like and said updating may be made conditional on communication control information such as the identity of an intended recipient as well as data content.

21. U.S. Published Patent Application No. 20030131061 to Newton *et al.*

A proxy server, connected to a local network, is provided. The proxy server permits redirection of instant messages within the local network.

Description of the Invention

The present invention comprises apparatus and methods for intercepting, examining, and controlling code transferred through instant messaging and/or peer to peer connections. The present invention may operate on a single computer system or multiple systems depending on the operating system and other variables. The present invention may, in various embodiments, process, that is, intercept, examine, and/or control any or all instant messaging and/or peer-to-peer code streams in a computer or network. Intercepting, examining and/or controlling instant messaging and/or peer-to-peer code includes but is not limited to monitoring, blocking, logging, quarantining, discarding or transferring instant messaging and/or peer-to-peer code. Although

the present invention can be implemented on various platforms, the preferred embodiments are used in Unix[®] and various Windows[®] environments, such as NT, 2000, 95, 98 and Me.

The preferred embodiments monitor transfers from a system using a protocol parser which may be placed on the client system, the server system, or other intermediate system or component. In the especially preferred Unix[®] embodiments, the protocol parser is a Unix[®] STREAMS module and driver activated when an application opens a STREAMS device of the proper type. In the especially preferred Windows[®] NT embodiments, the protocol parser is a WinNT driver activated when an application opens a communications channel.

In the especially preferred embodiments, the protocol parser is placed so as to intercept code passing through any channel using TCP and/or UDP (referred to hereinafter as "TCP".) Other possible parameters in the especially preferred embodiments include interception of code traveling to specific instant messaging and/or peer-to-peer port numbers, or code traveling in specific directions (e.g. from an external network to internal network). Code parameters, as well, may be used as interception parameters.

The intercepted code is sent by the parser to a protocol scanner. The protocol scanner in turn reviews the code it has received from the parser. Depending upon its configuration, which in the preferred embodiments include port interception designation, file type interception designation, instant messaging content and/or other parameters, the protocol scanner will pass some, all, or none of the code flowing through it to a proscribed code scanner. This proscribed code scanner may be an antivirus scanner, pattern scanner, and/or content scanner or other types. This proscribed code scanner, depending on its settings, may pass some, all or none of the code passing through it.

If the code passing through the intercept module is not intercepted, that is, passed to the protocol scanner, it is returned to the communications channel. Similarly, if the code passing through the protocol scanner is not intercepted, that is, passed to the proscribed code scanner, it is returned to the communications channel.

Thus, the embodiments of the present invention process code by intercepting or diverting code from a communication channel, processing it, and then reintroducing it (or not as desired) into that channel. By intercepting or diverting code from a communication channel, the preferred embodiments do not change the nature of the communication, and process code transparently to the applications, unless a problem is discovered. In that case, the preferred embodiments may, if desired, be configured to notify the application and/or the user, among other actions.

When the parser intercepts a request from a client or server for an SSL transfer the parser creates a new SSL server that communicates with the original client and a new SSL client that communicates with the original server. The SSL server and SSL client may then intercept any and all communications that occur between the original SSL client and original SSL server.

The preferred embodiments will also intercept and review S/MIME messages. The S/MIME messages will be intercepted by the protocol parser and sent to a S/MIME decryptor. The decrypted messages can then be scanned by a proscribed code scanner, which may be an antivirus scanner, pattern scanner, and/or content scanner or other types. The proscribed code scanner will then review the code and signal whether the S/MIME message may be released from interception.

Analysis of the Cited Art

Claim 1 is representative of aspects of the invention. This claim is reproduced below for the Examiner's convenience.

1) An apparatus for processing code comprising:

- a protocol parser; and,
- a proscribed code scanner; whereby said protocol parser intercepts instant messaging or peer-to-peer code on a communications channel and transmits said code for review by said proscribed code scanner.

None of the related art known or discovered by Applicants teaches or suggests this apparatus or method.

The two main groups of art Applicant has found involve, separately, antivirus scanners and protocol parsers. Additionally, a small third group involves instant messaging transition and redirection. As the review below shows, Applicant has been unable to find in the art any teaching, suggestion or disclosure of combining a protocol parser with a proscribed code scanner, whereby said protocol parser intercepts instant messaging or peer to peer code as taught by claim 1 of the present invention.

Applicant has also disclosed herewith a number of decryption patents. They are not believed anymore relevant that the protocol parser art and the anti virus art, as Applicant is unable to find in any of them a teaching suggestion or disclosure of either protocol parsing and/or antivirus scanning.

Virus Scan Type Apparatus and/or Methods

U.S. Patent No. 6,088,803 to Tso *et al.*, U.S. Patent No. 5,983,348 to Ji, U.S. Patent No. 5,889,943 to Ji *et al.*, U.S. Patent No. 5,832,208 to Chen *et al.*, U.S. Patent No. 5,623,600 to Ji *et al.*, U.S. Patent No. 5,586,266 to Hershey *et al.*, U.S. Patent No. 5,511,163 to Lerche *et al.*, U.S.

Patent No. 5,414,833 to Hershey et al., and U.S. Patent No. 5,319,776 to Hile *et al.* all appear to disclose virus scanning type apparatus and/or methods:

U.S. Patent No. 6,088,803 to Tso *et al.*, discloses a proxy server type of apparatus that retrieves data object(s), and scans the objects prior to their transmission to a client. There appears to be no mention of a parser as in claim 1 of the present invention.

U.S. Patent No. 5,983,348 to Ji discloses a network scanner for security checking of application programs. The scanner is apparently implemented as a HTTP proxy server. There appears to be no mention of a parser as in claim 1 of the present invention.

U.S. Patent No. 5,889,943 to Ji *et al.* discloses a scanner in an electronic mail system. Apparently, a dedicated node is provided for interception of email with an anti virus scanner attached. Again, Applicant is unable to locate anywhere in Ji a teaching, suggestion or disclosure of a parser as in claim 1 of the present invention.

U.S. Patent No. 5,832,208 to Chen *et al.* discloses an anti-virus module, located at a server computer, which scans files for viruses. Again, Applicant is unable to locate anywhere in Chen a teaching, suggestion or disclosure of a parser as in claim 1 of the present invention.

U.S. Patent No. 5,623,600 to Ji *et al.* discloses a system for detecting and eliminating viruses on a computer network through two proxy servers -- an File Transfer Protocol (FTP) proxy server and a Simple Mail Transfer Protocol (SMTP) proxy server. Again, Applicant is unable to locate anywhere in Ji a teaching, suggestion or disclosure of a parser as in claim 1 of the present invention.

U.S. Patent No. 5,586,266 to Hershey et al. discloses an adaptive scanner, which looks for patterns in data streams. The scanner, which operates through a number of finite system machines, operates to detects virus and other signatures, and modifies the stream if desired to

warn users, etc. Again, Applicant is unable to locate anywhere in Hershey a teaching, suggestion or disclosure of a parser as in claim 1 of the present invention.

U.S. Patent No. 5,511,163 to Lerche *et al.* discloses a network adaptor, which is contained with a local area network. The network adapter, along with a computer to which it is connected, performs an assembling and scanning of substantially all files on the network and carry out a recognition of virus signatures. Again, Applicant is unable to locate anywhere in Lerche a teaching, suggestion or disclosure of a parser as in claim 1 of the present invention. Rather, Lerche appears to combine packets into a file before scanning the packets.

U.S. Patent No. 5,414,833 to Hershey et al. discloses an adaptive scanner, which looks for patterns in data streams. The scanner, which operates through a number of finite system machines, operates to detects virus and other signatures. Again, Applicant is unable to locate anywhere in Hershey a teaching, suggestion or disclosure of a parser as in claim 1 of the present invention.

U.S. Patent No. 5,319,776 to Hile et al. discloses a finite state machine for character by character detection of viruses in data in transit between a source medium and a destination medium, such as between two computer communicating over a telecommunications link or network. Again, Applicant is unable to locate anywhere in Lerche a teaching, suggestion or disclosure of a parser as in claim 1 of the present invention. Rather, Hile appears to scan each character as it is transmitted, rather than packets implemented according to a protocol.

Protocol Parser-Type Apparatus and/or Methods

U.S. Patent No. 6,421,733 to Tso *et al.*, U.S. Patent No. 6,356,951 to Gentry, Jr., U.S. Patent No. 5,916,305 to Sikdar *et al.*, U.S. Patent No. 5,761,424 to Adams *et al.*, U.S. Patent No.

5,481,735 to Mortensen *et al.* and U.S. Published Patent Application No. 20020004819 to Agassy *et al.* all appear to disclose protocol parser-type apparatus and/or methods:

U.S. Patent No. 6,421,733 to Tso *et al.*, U.S. Patent No. 5,761,424 to Adams *et al.*, U.S. Patent No. 5,481,735 to Mortensen *et al.* and U.S. Published Patent Application No. 20020004819 to Agassy *et al.* appear to use parsers to provide manipulation of data transmitted between computers.

U.S. Patent No. 6,356,951 to Gentry, Jr., U.S. Patent No. 5,916,305 to Sikdar *et al.* and U.S. Patent No. 5,761,424 to Adams *et al.* appear to provide parsers to match data packets to protocol templates in order to increase efficiency and/or accuracy of packet processing.

None of these parser related patents appear to disclose scanning the received packets for proscribed code, as claimed in claim 1 of the present invention. Nor is there apparently any teaching, suggestion or disclosure of combining a parser with a proscribed code or any scanner, as in claim 1 of the present invention.

Instant Messaging Apparatus and/or Methods

U.S. Patent No. 6,549,937 to Auerbach, et. al. and U.S. Published Patent Application No. 20030131061 to Newton et. al. disclose translation and redirection apparatus and/or methods for instant messaging. Neither appear to disclose scanning the received packets for proscribed code, as claimed in claim 1 of the present invention. Nor is there apparently any teaching, suggestion or disclosure of combining a parser with a proscribed code or any scanner, as in claim 1 of the present invention.

Accordingly, Applicant submits, insofar as none of the references disclose the elements of claim 1, claim 1 is patentable over the disclosed art. Claims 2-16 have the limitations of claim 1 and so Applicant submits, are also patentable. Claim 18 as well as its dependant claims 19-33, and independent claims 34 and 36, are similar to claim 1, and Applicant submits are also patentable.

Claim 17 is also representative of aspects of the invention. This claim is reproduced below for the Examiner's convenience.

17) An apparatus for processing code comprising:

- a protocol parser;
- a proscribed code scanner;
- a protocol scanner;
- a decryption component, whereby said protocol parser intercepts instant messaging or peer-to-peer code on a communications channel and transfers said code to said decryption component for decryption and scanning by said proscribed code scanner.

None of the related art known or discovered by Applicants teaches or suggests this apparatus or method. As was noted above, any art that discloses scanning appears to do so without parsing and/or decryption, and Applicant is unable to find any reference in the scanning art disclosed herein to parsing code in order to scan, nor to decrypting code. Moreover, as the review below of decryption art below, there does not appear to be a teaching disclosure or suggestion of parsing and/or scanning therein.

Decryption Type Apparatus and/or Methods

U.S. Patent No. 5,931,917 to Nguyen *et al.*, U.S. Patent No. 5,832,228 to Holden *et al.*, U.S. Patent No. 5,802,178 to Holden *et al.* and U.S. Patent No. 5,550,984 to Gelb all appear to disclose decryption type apparatus and/or methods:

U.S. Patent No. 5,931,917 to Nguyen *et al.* disclose a payment gateway system to receive encrypted payment requests from merchants, as HTTP POST messages via the Internet. The system further customizes the secured messages for various entities by a gateway unwrapping and decrypting the requests. Applicant is unable to locate any teaching, suggestion or disclosure about parsing or scanning for proscribed code as claimed, for example, in claim 17 of the present invention.

U.S. Patent No. 5,832,228 to Holden *et al.* and U.S. Patent No. 5,802,178 to Holden *et al.* both disclose a multi-level network security system for a computer host device coupled to at least one computer network. The system including a secure network interface unit (SNIU) contained within a communications stack of the computer device that operates at a user layer communications protocol. Decryption and encryption apparently occurs within the units. Applicant is unable to locate any teaching, suggestion or disclosure about parsing or scanning for proscribed code as claimed, for example, in claim 17 of the present invention.

U.S. Patent No. 5,550,984 to Gelb discloses a security system for connecting a first computer network to a second computer network. The security device has a pair of computer motherboards, each of which has a network interface adapter for receiving and transferring communications from a computer network to a transfer adapter to be transmitted to the other computer network through a transfer adapter and network interface adapter provided on the other computer motherboard. Encryption and decryption is provided through the devices. Applicant is unable to locate any teaching, suggestion or disclosure about parsing or scanning for proscribed code as claimed, for example, in claim 17 of the present invention.

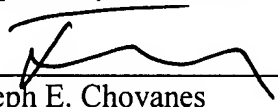
Moreover, any art that discloses parsing appears to do so in the context of manipulation and/or efficiency, and Applicant is unable to find any reference in the parsing art disclosed herein to scanning any parsed code for the presence of proscribed code nor to decrypting code. Moreover, any art that discloses decryption appears to do so without parsing and scanning.

Accordingly, Applicant submits, insofar as none of the references disclose the elements of claim 17, claim 17 is patentable over the disclosed art. Claim 35 has similar limitations to claim 17 and so Applicant submits, is also patentable.

Accordingly, Applicants respectfully request that the Petition to Make Special be granted, and that the application be taken out of turn for examination. Applicants also respectfully request, in light of the detailed description of the related art, early consideration and allowance of the solicited claims.

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